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10/024,219	12/21/2001	Robert M. Coleman	D/A0060Q	9057

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EXAMINER

MURPHY, DILLON J

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,219

Applicant(s)

COLEMAN, ROBERT M.

Examiner

Dillon J. Murphy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-10 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- DOUGLAS Q. TRAN**
PRIMARY EXAMINER
Travelogue
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

- This action is responsive to the amendment filed on September 23, 2005.
- Claims 1-10 are pending. Claim 10 is new.
- Amendments to the drawings and the specification are acknowledged and accepted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 5,704,021), Parkhurst et al. (US 5,642,474), Parkhurst et al. (Hewlett-Packard Journal, February 1994), and Dermer (US 5668931).

Regarding claim 1, Smith et al. teach a printing method wherein the electronic document includes at least one imaging object (Smith, col 3, ln 25-30, document includes a plurality of document types, wherein processing occurs in computer, #44 of figure 2A, in an electronic format), converting the electronic document into print data and rendering data in accordance with a page description language (Smith, col 3, ln 31-36, method comprises color-rendering options for processing said document and said objects), and associating at least one printer-independent print-quality characteristic

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with the at least one image object (col 7, ln 35-39, color modes are set for different objects such as text, graphics, and photographic images). Smith does not expressly disclose inserting the association information in the PDL file. Parkhurst et al. ('474) discloses inserting the association information in the PDL file (Parkhurst '474, col 4, ln 12-13, PCL file is sent to printer, therefore, print data in the form of the PDL file comprises association information).

Smith et al. and Parkhurst et al. are combinable because they are from the same field of endeavor of generating print data and sending said data to a printer. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of inserting the association information into a PDL file as taught by Parkhurst et al. with the method of providing an electronic document with an image object, converting said document into print data, and associating a printer-independent print-quality characteristic with said image object as taught by Smith et al. The motivation for doing so would have been to simplify fill processes and reduce memory and complexity of processing by providing a page description language that describes shapes as coordinates and primitives and describes text as characters and fonts rather than the appearance of fonts (Parkhurst et al. '474, col 1, ln 38-45).

The combination of Smith et al. and Parkhurst et al. teaches a method of printing wherein an electronic document is provided with an image object, converting said document into print data, associating a printer-independent print-quality characteristic with said image object, and inserting the association information into a PDL file. Although Smith et al. discloses associating printer-independent print-quality

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characteristics with image objects, and Parkhurst et al. ('474) discloses the use of PDL files in printing, the combination of Smith et al. and Parkhurst et al. ('474) does not disclose expressly the use of printer-independent print-quality characteristics in a PDL file. The Parkhurst et al. Journal reference titled "Connectivity of the HP DeskJet 1200C Printer" teaches the explicit use of PCL in the HP DeskJet 1200C printer (Parkhurst et al. Journal, page 85, paragraph 1 under "PCL 5C Language Firmware" subheading), while also teaching that the PCL specifies print attributes in a device independent fashion (Parkhurst et al. Journal, page 87, paragraph 1 under "Raster Operations" subheading).

The Parkhurst et al. journal article is combinable with the aforementioned combination of Smith et al. and Parkhurst et al. ('474) because the Parkhurst et al. journal article is incorporated by reference into the Parkhurst et al. patent (Parkhurst et al., '474, col 1, ln 22-28).

The combination of Smith et al., Parkhurst et al. ('474), and the Parkhurst et al. journal article teaches a method of making a PDL of an electronic document comprising providing an electronic document with at least one imaging object, converting the electronic document into print data and generating a PDL, associating at least one print independent print quality characteristic with the image object, and inserting the association information into the PDL file. The combination of Smith et al., Parkhurst et al. ('474), and the Parkhurst et al. journal article does not disclose expressly a method for creating a PDL wherein a printer-independent print-quality characteristic comprises instructions for indicating a feature of an image element that is to be preserved during

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rendering without specifying any printer-specific imaging actions needed to achieve the feature, such that when printer-dependent imaging actions are associated with the printer-independent print-quality characteristic, the printer-dependent imaging actions taken by the printer achieve the feature of the image element to be preserved during rendering. Dermer, however, teaches a method for generating a PDL file (Dermer, fig 4, trapping module #124 receives source image file #120 as a PDL (col 8, ln 60-63), performs trapping on said source image file, and outputs a trapped image file #126 as a PDL again. See col 9, ln 56-67, and col 10, ln 1-5, wherein trapped image file is output as a PDL) wherein a printer-independent print-quality characteristic comprises instructions for indicating a feature of an image element that is to be preserved during rendering without specifying any printer-specific imaging actions needed to achieve the feature (As per the teaching of the Parkhurst et al. journal, page 87, paragraph 1 under Raster Operations, PDLs describe printer-independent imaging actions. As seen in fig 1, #120, #124, and #126 of Dermer, trapping characteristics are indicated for a feature of an image element, i.e. print independent print quality characteristics indicate features of an image element to be preserved during rendering without specifying printer-specific imaging actions), such that when printer-dependent imaging actions are associated with the printer-independent print-quality characteristic, the printer-dependent imaging actions taken by the printer achieve the feature of the image element to be preserved during rendering (Dermer, col 7, ln 62-67, trapped image are input into an assembly and separation module to be converted into halftone representation, i.e. printer dependent imaging actions are taken to achieve the preserved image element).

The Smith et al., Parkhurst et al. ('474), the Parkhurst et al. journal article, and Dermer are combinable because they are from a similar field of endeavor of generating print data and sending said data to a printer. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine method of generating a PDL comprising the printer-independent print-quality characteristics comprising instructions for indicating a feature of an image element such that when printer-dependent imaging actions are associated with the printer-independent print quality characteristics, actions taken by the printer achieve the feature of the image element with the method of the combination of Smith et al., Parkhurst et al. ('474), and the Parkhurst et al. journal article teaching a method of making a PDL of an electronic document comprising providing an electronic document with at least one imaging object, convert the electronic document into print data and generating a PDL, associating at least one print independent print quality characteristic with the image object, and inserting the association information into the PDL file. The motivation for doing so would have been to provide a method and apparatus for processing digital data representing a graphic image to compensate for printing plate misregistration (Dermer, col 4, ln 34-36). Therefore, it would have been obvious to combine Dermer with the combination of Smith et al., Parkhurst et al. ('474), and the Parkhurst et al. Journal article to obtain the invention as specified in claim 1.

Regarding claim 2, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document wherein the

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image object has an object type and wherein the associating step comprises the steps of:

Providing a list of object types (Smith et al., figure 2B, #80, list of object types is provided in a user interface allowing user to choose between color text, color charts, or color photos);

Providing a list of printer-independent print-quality characteristics (Smith et al., figure 2B, #80, list comprises color options such as color control and halftone. Also see the Parkhurst et al. journal reference, page 94, paragraph 1, under "Document" subheading, wherein print-quality characteristics are printer-independent);

Selecting the image object's object type from the list of object types (Smith et al., figure 2B, #80, the user makes selections from object type list); and

Associating at least one printer-independent print-quality characteristic with the selected object type (Smith et al., col 6, ln 4-14, print-quality characteristics are associated with object type).

Regarding claim 3, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document wherein the associating step further comprises:

Providing a list of object descriptors for the image object (Smith et al., figure 4, #60, user can select from list of fonts to describe text, and also #65, print quality, where user can generally describe print quality and speed); and

Associating at least one printer-independent print-quality characteristic with each of said object descriptors (Parkhurst et al., HP Journal, page 87, paragraph 2 under “Parser” subheading, where printer-independent print-quality characteristics of text such as typeface, location on the page, and point size are associated with object descriptors).

Regarding claim 4, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document further comprising:

Defining a custom object descriptor for the image object (Smith et al., figure 5, #96, lightness slider customizes colors of image object, and lookup table colors #97, allows user to map to custom colors);

Adding the custom object descriptor to the list of object descriptors (Smith et al., col 8, ln 11-16, custom colors are mapped to text, graphics, and photos); and

Associating at least one printer-independent print-quality characteristic with said custom object descriptor (Smith et al., col 2, ln 59-61, color settings are printer-independent print-quality characteristic, wherein color settings are changed in the “Printed Color Control” user interface and applied to object descriptors).

Regarding claim 5, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document further comprising:

Providing a default set of associations for use by the page description language, wherein the default set comprises a plurality of object types and at least one printer-

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independent print-quality characteristic associated with each of said plurality of object types (Smith et al., col 8, ln 1-5, default button provides default print settings for print job, and also figure 5, #80, wherein user can select automatic button for recommended settings to be applied to object types); and

Inserting the default set in the PDL file (Parkhurst '474, col 4, ln 12-13, PCL file is sent to printer, therefore, print data with default set is inserted into the PDL file).

Regarding claim 6, which depends from claim 3, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document further comprising inserting the list of object descriptors for the image object in the PDL file (Parkhurst et al., HP Journal, page 87, paragraph 2 under "Parser" subheading, where object descriptors are inserted into PCL file in the form of location of text).

Regarding claim 7, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document further comprising:

Identifying locations of the image object in the document (Parkhurst et al., HP Journal, page 85, paragraph 3 under "Parser" subheading, rectangles, i.e. image objects, are identified by location), and inserting the printer-independent print quality-characteristic at the identified location with the image object (Parkhurst et al., HP Journal, page 86, paragraph 5 of "Parser" subheading, object descriptor such as color is applied to image object with corresponding location).

Regarding claim 9, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language description of an electronic document further comprising inserting the association information in the PLD file by location of the particular image object (Parkhurst et al., HP Journal, page 86, paragraph 5 of "Parser" subheading, printer-independent print-quality characteristics such as color is associated with image object, such as text or graphics, at a corresponding location).

Regarding claim 10, which depends from claim 1, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method for creating a page description language wherein the printer-independent print-quality characteristics comprise at least one of "make sharp edges," "reduce mottle," "distinguish neighboring colors," "reduce moiré," "distinguish tone and edges," "maximum tone depth," "perceptual colors," "contour," "no abutting corners," "increase moiré," "uniform gloss," "distinctness" and "compress without loss of detail" (Smith et al., fig 5 #82, and col 8, ln 17-20, wherein one printer-independent print quality characteristic is "perceptual color," i.e. vivid color. See also Dermer, fig 1, #124 trapping module, wherein printer-independent print-quality characteristic comprises "distinguish neighboring colors," i.e. trapping).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 5,704,021), Parkhurst et al. (US 5,642,474), Parkhurst et al. (Hewlett-Packard

Journal, February 1994), and Dermer (US 5668931) as applied to claim 3 above, and further in view of Palmer (US 6,078,403).

Regarding claim 8, which depends from claim 3, the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer teaches a method of creating a PDL of an electronic document comprising providing an electronic document with an image object, converting said document into print data and generating a PDL, associating print-independent print-quality characteristics with an image object, wherein a print-independent print-quality characteristic indicates a feature of an image element to be preserved, and upon associating printer-dependent imaging actions and printer-independent print-quality characteristics, preserving and achieving the image element during rendering, providing a list of object descriptors for the image object, and associating a print-independent print-quality characteristic with said object descriptors, as explained above in the rejection of claim 3. The combination does not teach adding PDL comments for each object descriptor. The Palmer reference does teach adding PDL comments for each object descriptors (Palmer, col 4, ln 52-56, invention relates to associating parameters with text and other data objects in documents, wherein size and format information are encoded in a document with page description language comments, col 5, ln 53-57 and #86 in figure 4).

Palmer is combinable with the aforementioned combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer because they are from the same field of endeavor of generating print data for objects in printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the

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art to combine the PDL comments of Palmer with the methods of associating printer-independent print-quality characteristics with image objects and object descriptors in a PDL as described in claim 3. The motivation for doing so would have been to provide comment statements within a base document without the variable data associations being present in the base document (Palmer, col 6, ln 1-8). Additionally, Parkhurst et al. teaches that the PDL of the printer embodied in the reference comprises HP's Printer Control Language and PostScript, thereby allowing for printer-independent print-quality characteristics to be expressed in a plurality of high-level languages (HP Journal, page 95, paragraph 4 of "Documents" subheading). Therefore, it would have been obvious to combine Palmer with the combination of Smith et al., Parkhurst et al. ('474), Parkhurst et al. (HP Journal), and Dermer to obtain the invention as specified in claim 8.

Response to Arguments

Applicant's arguments filed September 23, 2005 have been fully considered but they are not persuasive.

Applicant argues (page, 9, ln 5-19) that Smith ('021) does not teach or suggest printer-independent print-quality characteristics, which are associated with image elements in a document to be printed. Even though Smith ('021) does not explicitly state a printer-independent print-quality characteristic, his system does meet the claimed limitations. For instance, whenever automatic color is selected, the default controls are used within that option to preserve the feature (color) during rendering. This

corresponds to what the applicant claims as printer-independent print-quality characteristics.

The user does not specify any other characteristic or features. Therefore, the user would not specify printer dependent actions. In the alternative, whenever the user selects manual color, this also corresponds with the printer-independent print-quality characteristics of vivid color, match screen, no adjust, halftone, cluster, pattern scatter because it achieves the image the user desires to be preserved (i.e. preserve vivid colors) during rendering. Selecting these does not specify amount of ink used or half tone pattern used. While applicant may have intended to distinguish over Smith (1021), the limitations "printer independent," "printer dependent," "element to be preserved," "specific imaging actions," and "perceptual colors" are broad enough that Smith ('021) meets these limitations.

Applicant states, on page 10, ln 12-20, that the Parkhurst et al. Journal does not teach or suggest specifying printer-independent print quality-characteristics. However, on page 87, paragraph 1 of Raster Operations, Parkhurst discloses the PDL language specifies jobs in a device-independent fashion. Any information contained in the PDL is considered device-independent, including the trapping of Dermer and the vivid colors of Smith et al.

Additionally in regards to the rejection of claim 8 teachings of Palmer, Applicant states, on page 10, ln 21-25, that adding selected presentation text or other objects is not the same as specifying printer-independent print quality characteristics. The examiner is not citing Palmer as teaching the specifying printer-independent print-

quality characteristics, although the examiner is citing Palmer for teaching the adding of PDL comments for each object descriptor. In col 5, ln 50-67, and col 6, ln 1-8, Palmer teaches adding comments to a PDL file to specify the data to be printer in a format that is widely supported by page layout and word processing programs.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dillon Murphy

Dillon Murphy

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Tranlong